

AN EVALUATION OF THE BREASTFEEDING PEER HELPER PROGRAM IN
OHIO'S SPECIAL SUPPLEMENTAL NUTRITION PROGRAM FOR WOMEN, INFANTS
AND CHILDREN

A Senior Honors Thesis

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Abstract:

Background: Ohio's Special Supplemental Nutrition Program for Women, Infants and Children (WIC) serves infants, children up to age five, and women who are pregnant, breastfeeding or postpartum. Ohio WIC is comprised of 75 projects, each serving one to four counties.

Beginning in January 2004, 11 projects implemented the Breastfeeding Peer Helper Program (BPHP), which aims to increase breastfeeding initiation and duration among WIC participants by employing and training women who have breastfed to promote, support and educate on breastfeeding as breastfeeding peer helpers (PH). The objectives of this study were to 1) describe current program operations 2) assess BPHP effects on initiation rates, and 3) determine the characteristics of successful programs. **Methods:** PH and supervisors completed an online questionnaire on training, employment, activities and PH demographics. Data on breastfeeding rates and participant demographics came from the Pediatric Nutrition Surveillance System (PedNSS), the Pregnancy Nutrition Surveillance System (PNSS) and administrative records.

SPSS was used to analyze descriptive data and SAS to compare breastfeeding rates. **Results:** BPHP administration including hours of training (median: 24) ratio of peers to women participants (range: 1:100 to 1:1300), rate of pay (average: \$10.43/hour), and activities performed by the PH (e.g., home and hospital visits) varied among projects. Among participants in BPHP projects breastfeeding initiation increased 18.3% from 2003 and 2007, compared to 12.8% ($p<0.05$) for non-BPHP projects. However, white participants in BPHP projects increased breastfeeding 23% (vs. 14% in non-BPHP, $p<.005$), while there was no difference among black participants (14.8 vs. 14.5%). Projects with programs where PH made 21 or more hospital visits per quarter showed a 6.62% higher increase in breastfeeding initiation rates than those projects with fewer than 21. **Conclusions:** The Ohio BPHP is successful in improving

breastfeeding rates among WIC participants. The program should explore ways to improve effectiveness among black participants.

Introduction:

It is known that breast milk is the best source of nutrition for an infant and has health benefits for the mother (Section on Breastfeeding, 2005). However, Ohio has consistently had some of the lowest breastfeeding rates of any state in the country. According to recent data from the Centers for Disease Control and Prevention (CDC), Ohio has the ninth lowest percentage of babies ever breastfed in the United States (Centers for Disease Control and Prevention, 2008). A Healthy People 2010 goal is to have ever breastfed rates that are at or above 75% for all babies (Healthy People 2010 Midcourse Review, 2006). In Ohio, the rate as of 2005 was only 65% (CDC, 2008). Affluent, better educated women are more likely to breastfeed and only a small proportion of low-income women choose to breastfeed. Additionally, African American women breastfeed at lower rates than white women, regardless of other socioeconomic factors (Centers for Disease Control and Prevention, 2006). Within the WIC population, only 44.8% of infants are ever breastfed (Pediatric Nutrition Surveillance System, 2008).

Ohio's Special Supplemental Nutrition Program for Women, Infants and Children (WIC) has worked to increase breastfeeding initiation and duration rates among participants. In January of 2004, The Ohio WIC Breastfeeding Peer Helper Program (BPHP) was started in 11 WIC projects for this purpose. The program provides participating WIC projects with the opportunity to increase breastfeeding rates by hiring peer helpers to discuss the infant feeding decision and work with moms on breastfeeding issues. This program meets the need for a program that focuses specifically on increasing breastfeeding initiation rates, as well as how long a baby is breastfed, and helping mothers to make and meet personal breastfeeding goals.

The activities of the BPHP differ among WIC projects. What is always the same is that peer helpers are women who are currently or have previously been on WIC, have successfully

exclusively or substantially breastfed a child for at least six months and have a strong desire to help other mothers achieve their breastfeeding goals. Peer helpers are trained using the USDA mandated *Loving Support Through Peer Counseling* curriculum in how to mentor other moms and help them with common challenges they may experience while breastfeeding. The activities of the BPHP programs include various types of contacts with participants. WIC projects have broad authority to tailor the program and may include face-to-face contact between peers and participants, hospital visits after delivery, home visits, group meetings, phone support, or the availability of peers to moms who need help outside of regular 8:00 AM to 5:00 PM business hours. How prevalent the use was of these various contacts was undocumented.

The BPHP has been active for over four years within 11 of Ohio's WIC projects and has expanded into another 12 projects and was in need of evaluation. Using the CDC Framework for Program Evaluation in Public Health by the CDC, an evaluation was designed to evaluate the effectiveness of the program (Centers for Disease Control and Prevention, 1999). After discussing this evaluation with stakeholders, goals for the study and research questions were formulated. The goals of the evaluation were threefold and were to: 1) describe current operations of the program among long-term projects, 2) assess the effects of the Ohio WIC Breastfeeding Peer Helper Program on breastfeeding initiation, and 3) determine the characteristics of successful peer programs.

The evaluation will provide the state level managers, program administrators, breastfeeding coordinators and the peer helpers with information to aid in improving the program. We expect that the state-level managers of the program will be able to make decisions about funding, expansion, and development of existing projects based on this information. It will help in making decisions about how to spend the money that is designated for the BPHP as

well as deciding whether or not to pursue further Federal funding. Program administrators should be able to use the evaluation to improve hiring and training as well as providing information about what makes an effective peer helper. The evaluation will also provide insight into which program activities and operations currently performed in some or all of the clinics are most effective. In addition, the evaluation will provide information for project directors without BPHP to use to decide whether or not to pursue implementing a BPHP in their projects. Finally, the peers themselves should be able to utilize this information to be more effective while helping new moms. The evaluation will help them better understand their role in the program and how to be most effective in their jobs.

The BPHP is in the stage of development where it has been active for long enough to evaluate (i.e., the “effects” stage), and can be studied to find answers to the three objectives as described above (Centers for Disease Control and Prevention, 1999).

Literature Review:

Since 1989, the United States Department of Agriculture (USDA) has mandated that breastfeeding be encouraged by health professionals when counseling participants in the Supplemental Nutrition Program for Women, Infants and Children (WIC). The health benefits of breastmilk over formula are widely known, as studies have shown that a breastfed baby develops more normally and has a stronger immune system than a formula fed baby (American Academy of Pediatrics, 2005). The Healthy People 2010 objectives for breastfeeding include several benchmark goals. These include having 75% of mothers initiate breastfeeding, 50% continuing to breastfeed at 6 months and 25% to be breastfeeding at 12 months (Healthy People 2010 Midcourse Review, 2006). In 2005, two new objectives were added including having 60% of mothers exclusively breastfeeding through three months and 25% of mothers exclusively breastfeeding through six months (Healthy People 2010 Midcourse Review, 2006). In Ohio, breastfeeding rates are well below these targets. As of 2005, Ohio's ever breastfed rate (i.e. initiation) was 65% (Centers for Disease Control and Prevention, 2008). Among Ohio WIC participants, ever breastfed rates are even lower at 44.6% as of 2007 (Pediatric Nutrition Surveillance System, 2008). Without continuing efforts to educate women about breastfeeding as well as to support women who choose to breastfeed, the Healthy People 2010 objectives will remain unattained.

This literature review will discuss the findings of research that has been conducted about the use of peer helpers, or peer counselors, within the WIC system to encourage and support breastfeeding. The review will focus on those studies with findings related to the objectives of the present study, which are to 1) describe current operations of the program among long-term

peer projects, 2) assess the effects of the Ohio WIC Breastfeeding Peer Helper Program on breastfeeding initiation, and 3) determine the characteristics of successful peer programs.

Research concerning the operations and activities involved in peer helper programs are limited. However, the article *Breastfeeding Peer Counseling: Results from the National WIC Survey* discusses a lack of policies and procedures surrounding the activities of peer helpers (Bronner, Barber, Vogelhut, & Resnik, 2001). The survey results showed that about half of the WIC projects nationwide were lacking policies and procedures relevant to the hiring, training and on-the-job activities of peer counseling (Bronner, Barber, Vogelhut et al., 2001). When surveyed, there was a discrepancy between what the peer counselor coordinators and peer counselors reported as the method for recruiting clients for counseling. Additionally, only 43% of peer counselor coordinators who were surveyed said that they had specific policies and procedures for recruiting and hiring peer counselors. Similarly, only 50% of the coordinators reported having procedures for training new peer counselors (Bronner, Barber, Vogelhut et al., 2001). The most common activities of peer counselors included one-to-one counseling, telephone counseling, formal group classes and individual counseling with a significant other. However, none of these activities were utilized in every program surveyed. Daily activities of peer counselors were only tracked with an activity log by 71.5% of peers, meaning that the remaining 28.5% of peers did not have their activities monitored by a supervisor (Bronner, Barber, Vogelhut et al., 2001). As one study showed, poor job descriptions and lack of proper training and supervision can cause peer counselors to be ineffective at increasing breastfeeding rates (Giblin, 1989). Gaining a better understanding of the activities that take place within Ohio's Breastfeeding Peer Helper Program is necessary in order to assess its effectiveness at improving breastfeeding rates.

Several studies have aimed to describe if and to what degree the peer counselor programs are effective at increasing breastfeeding initiation and duration. Most of the research on this topic indicates that utilizing peer helpers is an effective method of increasing initiation of breastfeeding within the WIC population (Arlotti, Cottrell, Lee, & Curtin, 1998; Bronner, Barber, & Miele, 2001; Caulfield et al., 1998; Grummer-Strawn, Rice, Dugas, Clark, & Benton-Davis, 1997; Schafer, Vogel, Viegas, & Hausafus, 1998; Shaw & Kaczorowski, 1999; Shaw & Kaczorowski, 1999). Fewer studies have measured the effectiveness of peer helpers to increase duration. Most that did, however, found that duration of breastfeeding was significantly increased in mothers who had contact with a peer counselor compared to a control group that did not have the contact (Grummer-Strawn et al., 1997; Schafer et al., 1998; Shaw & Kaczorowski, 1999). Arlotti and colleagues found that contact with a peer counselor was associated with longer duration of exclusive breastfeeding (i.e. breastfeeding without the use of other supplements) (Arlotti et al., 1998). However, one study conducted focusing specifically on African American women in Baltimore found that peer counselors either with or without the additional use of a breastfeeding promotion video had no effect on breastfeeding duration rates compared to a control group (Caulfield et al., 1998).

A study in Mississippi found that peer counseling had an effect on breastfeeding rates, but only when it met certain conditions. In order to be effective, a peer counselor needed to spend at least 45 minutes, in a single session, counseling each participant. When less than 45 minutes was spent with participants, clinics with peer counseling were shown to be less effective at promoting breastfeeding than those clinics with a lactation specialist or consultant (Grummer-Strawn et al., 1997).

Many of these studies on the effect of the peer counselors among WIC participants reported on other factors associated with the likelihood of a mother to initiate breastfeeding and continue to do so. Caulfield and colleagues found that breastfeeding initiation was negatively associated with low maternal education, lack of breastfeeding instruction and receipt of formula packs at hospital discharge (Caulfield et al., 1998). Shaw and Kaczorowski found that support from the family and health provider and initial decision to breastfeed were significantly associated with initiation of breastfeeding (Shaw & Kaczorowski, 1999).

Other factors associated with the length of breastfeeding duration were considered in many studies. Arlotti and colleagues found that the mother's career plan was the largest predictor of breastfeeding exclusivity and duration (Arlotti et al., 1998). A career plan that included intentions to return to work, school or both was associated with a shorter duration of breastfeeding. The second most important predictor for breastfeeding duration was support from a significant other (Arlotti et al., 1998). Another study found that maternal age of less than 18, being a single parent, low education level and no employment before pregnancy were all associated with a lower likelihood to continue breastfeeding until at least seven to ten days (Caulfield et al., 1998).

The third objective of the present study is to determine what characteristics of breastfeeding peer counseling programs are associated with greater improvements in breastfeeding initiation and duration. One study that examined these characteristics was the research of Grummer-Strawn and colleagues on the peer counseling program in Mississippi WIC clinics. The Mississippi program began in 1990 and was evaluated with information up to 1993, meaning that improvements in breastfeeding rates were based on a program existing for up to three years (Grummer-Strawn et al., 1997). This research showed that clinics having at least one

lactation specialist on staff increased the rate of infants ever breastfed by 4.4 more percentage points than clinics with no lactation specialist (Grummer-Strawn et al., 1997). In fact, that data showed that having a peer counselor in addition to a lactation consultant was actually less effective than just having a lactation consultant unless the peer counselor spent at least 45 minutes with each participant (Grummer-Strawn et al., 1997). Clinics where 50% or more of the staff were previously WIC participants were shown to be more effective (Grummer-Strawn et al., 1997). Surprisingly, improvement of breastfeeding rates was found not to be associated with whether or not there was a black staff member, even though over 60% of the WIC participants in the study were black (Grummer-Strawn et al., 1997). The data did indicate that a mean age of staff over 35 years predicted for a more successful program, although staff members with more experience as peer counselors or those who had breastfeed for a longer duration was not significantly associated with increased breastfeeding rates (Grummer-Strawn et al., 1997). Lastly, the amount of time that the peer program had been in operation was found to be significant in the effectiveness of the program (Grummer-Strawn et al., 1997). Programs that had been in operation for 18 months to 27 months were more effective than programs that had been in operation for fewer than 18 months (Grummer-Strawn et al., 1997).

In Ohio, previous unpublished research has been completed on the Breastfeeding Peer Helper Program. The research studied the impact of exposure to a peer helper in 11 WIC projects during the first year of the program (Taylor, 2005). For the non-intervention group, 703 mother and infant units were studied and compared to the 179 mother and infant units in the intervention group. The findings indicated that the mothers who were exposed to peer helpers had a higher likelihood of breastfeeding (Taylor, 2005). However, when intention to breastfeed was controlled for, there was almost no association between breastfeeding initiation and

exposure to the peer helpers (Taylor, 2005). Results of this study are limited by only having one year of data, such that effects at a later point in time are unknown. Additionally, controlling for intent to breastfeed may not be appropriate because the BPHP may impact intention.

Evaluation of Ohio's program will ensure that it is meeting the objectives it was designed to achieve and provide the data needed to compare Ohio to programs in other states. The research done previously on other WIC programs has shown that there is high potential to improve breastfeeding rates with a peer counseling program. Although not every program was found to be successful, most programs did improve breastfeeding initiation by mothers who were counseled by a peer helper. Duration appears to be increased as well, although less research is available on this outcome.

Methods:

Background and Approval

This study was completed by request for Ohio's Special Supplemental Nutrition Program for Women, Infants and Children (WIC), Ohio Department of Health. The framework used for this evaluation was the CDC's *Framework for Program Evaluation in Public Health* (Centers for Disease Control and Prevention, 1999). It is an evaluation process made up of six steps: engage the stakeholders, describe the program, focus the evaluation design, gather credible evidence, justify conclusions and ensure use and share lessons learned. This framework provided the guiding steps that lead the design and methods of the evaluation. The steps are each described below:

Step 1) Engage the Stakeholders:

The first step of the CDC framework was to identify and engage the stakeholders. This was done to ensure that everyone who would be using the evaluation would be able to give input into what questions the evaluation would answer and thus ensure that the evaluation would be as practically useful as possible. Stakeholders were identified as state level managers, the state breastfeeding coordinator, and local breastfeeding coordinators. State level managers were interviewed directly about how they hoped to use the evaluation results and what questions they would find helpful having answers for. The breastfeeding coordinators from many of the WIC projects were, as a group, presented with the idea of this evaluation and asked for input as well. These meetings provided a list of questions, found in Appendix A. This helped to inform the researchers of what information about the program was lacking and what questions were most prominent in the minds of the stakeholders.

Step 2) Describe the Program:

The purpose of this step was to define the mission and objectives of the Breastfeeding Peer Helper Program (BPHP). This step of the CDC framework was not as straight forward as the first for this evaluation. This step was primarily used to collect federal regulations and other program data. During the first step, it was found that the Breastfeeding Peer Helper Program was not consistently defined by all stakeholders. The WIC projects, made up of one to four counties, do not run their programs alike. Federal regulations stipulate that certain requirements be met by peer programs. However, these regulations leave much room for variation within program parameters. There is variation among the practices of each project ranging from program activities to pay and training. Therefore, describing the program operations among established BPHP became one of the research questions to be answered by the evaluation.

Step 3) Focus the Evaluation Design:

At this step, the objectives of the evaluation, which are described in the introduction, were determined. To meet the objectives, the evaluation design required several components: a) survey of peer helpers and peer supervisors, b) descriptive analysis of existing program documents and reports and c) statistical analysis of breastfeeding data over time.

Users and uses:

The specific users and uses of this evaluation are at many levels of WIC. The state level managers of the program will be able to make decisions about money and expansion based on this information. It will help in making decisions about how to spend the money that is designated for the BPHP as well as deciding whether or not to pursue further federal funding.

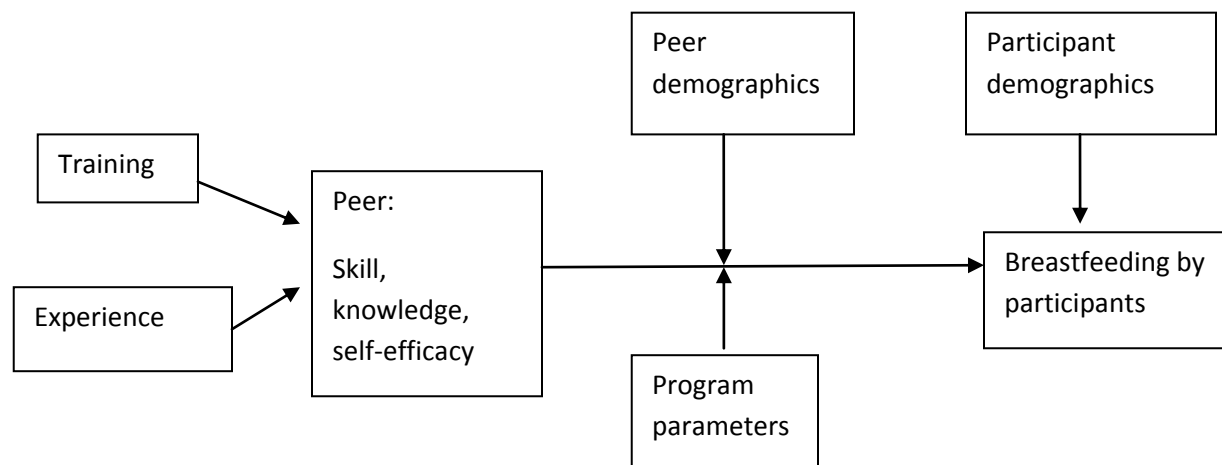
Program administrators, or breastfeeding coordinators, will be able to make decisions about program operations. This will include decisions about hiring and training as well as providing information about what makes a good peer helper. The evaluation will also provide insight into which program activities and operations currently performed in some or all of the clinics are most effective.

Finally, the peers themselves should be able to utilize this information to be more effective while helping new moms. The evaluation will help them better understand their role in the program and how to be most effective in their jobs.

Theoretical Framework:

A theoretical framework was created to help the researchers better understand what inputs and outputs are expected as a result of the program.

Figure 1: Theoretical Framework for the Ohio WIC Breastfeeding Peer Helper Program



Questionnaire development:

The questionnaire to be completed by peer helpers and peer supervisors began development in a grid to ensure that all areas of interest were covered.

Table 1: Questionnaire Topics and Respondents		
Category:	Subcategory:	Question to be asked to: (peer or supervisor)
Demographics	<ul style="list-style-type: none">• Race• Ethnicity• Age• Education• Marital status• Languages spoken• Peer or Supervisor	<ul style="list-style-type: none">• Peer• Peer• Peer• Peer• Peer• Peer• Supervisor/peer
Training	<ul style="list-style-type: none">• Hours of training• Continuing training• Certifications	<ul style="list-style-type: none">• Supervisor• Supervisor/peer• Supervisor/peer
Program parameters	<ul style="list-style-type: none">• Turnover rates• Pay rates• Work hours• Type of consultations• County worked in• Initial contact• Number hours worked per week• Number of peers employed	<ul style="list-style-type: none">• Supervisor• Peer• Supervisor• Supervisor• Supervisor/peer• Peer• Peer• Supervisor
Peer experience	<ul style="list-style-type: none">• Problems with Breastfeeding• Years in job• Number of times breastfeeding• Longest time breastfeeding	<ul style="list-style-type: none">• Peer• Peer• Peer• Peer
Self-efficacy	<ul style="list-style-type: none">• Confidence in abilities	<ul style="list-style-type: none">• Supervisor/peer

Step 4) Gather Credible Evidence:

There were three major data sources for this evaluation. The first involved primary data collection while the other two were existing sources. The first was a survey of peer supervisors and peer helpers in established Breastfeeding Peer Helper Programs. A printed copy of the questionnaires can be found in Appendix B. The questionnaires were pilot tested in two Ohio counties that would not be responding to the actual survey, Butler and Cuyahoga, which run the BPHP but were not one of the 11 original programs. For the pilot the breastfeeding supervisors and peer helpers were asked to complete the online questionnaire while on the phone with a researcher who asked questions about their responses and understanding of the survey. Following the Dillman method, a pre-survey e-mail, which can be found in Appendix B, was sent to inform WIC projects about the pending survey (Salant and Dillman, 1994). In August 2008, the final questionnaire and a cover letter with a link to SurveyMonkey were sent by e-mail to the 11 WIC projects, representing 13 counties, which were part of the original BPHP that began in 2004. All peer helpers and supervisors were asked to complete the survey. The cover letter, which can be found in Appendix B, provided information about the reason for the questionnaire as well as information about how to take it and the completion deadline. The peer helpers and peer supervisors were given two weeks to complete the questionnaire. Another e-mail was sent out halfway through the two weeks as a reminder to all peers and supervisors that there was one week left. Projects that had not completed all questionnaires by the deadline were given reminder calls by the researcher or a state WIC staff member.

The second source of data was through document analysis. Data about the WIC projects were extracted from existing WIC documents, such as quarterly BPHP reports. The quarterly reports provided information such as the number of private meetings held between helpers and

supervisors. They also provided confirmation about the number of home visits, hospital visits and group support meetings completed by peer helpers. Other information gathered from WIC sources included the number of WIC participants in each county.

The third source of data for the evaluation was previously gathered information from Ohio's Pediatric Nutrition Surveillance System (PedNSS) and Pregnancy Nutrition Surveillance System (PNSS). Both of these systems were developed by the Centers for Disease Control and Prevention (CDC) (Centers for Disease Control and Prevention, 2009). Nutrition status information for PedNSS is gathered about low-income infants and children up to 18 years of age who are at-risk for problems such as, high or low birth weight, overweight, underweight, short stature and anemia. Information from PedNSS is provided annually and includes information on infants and children in Ohio's WIC program, including demographic and breastfeeding status. Since PedNSS gathers data for the entire state of Ohio, breastfeeding rates for projects with and without the Breastfeeding Peer Helper Program can be determined and compared. For this study, percentages of ever-breastfed infants from 2003 and 2007 PedNSS data were utilized. PNSS provides information on women in the WIC program. Since information regarding the activities of the program was gathered in 2007, only 2007 PNSS data was utilized. The information used was the number of women in each county, which helped to provide ratios for comparing the activities of one county to another. The racial and ethnic makeup of the participant population in each county was also available in the PNSS data.

Step 5) Justifying Conclusions:

In order to justify the conclusions of this study, a thorough analysis of gathered data was completed. Data from the SurveyMonkey questionnaire and information gathered from

administrative WIC documents were categorized for analysis. Descriptive analyses, including calculation of frequencies, means and medians, were performed using SPSS software for objective 1.

For objective 2, to determine the effects of the BPHP on breastfeeding initiation, analyses were conducted using SAS software. Annual breastfeeding initiation rates were calculated from Ohio PedNSS data where the numerator was the number of WIC infants born in that year who were ever breastfed and the denominator was the number of WIC infants born in that year. Rates were calculated for each of the following groups: WIC infants in Ohio, each county, infants in counties with BPHP starting in 2004, and infants in counties with no BPHP (or BPHP starting after 2007). The absolute percentage point change, percent change, and average annual percent change in breastfeeding initiation rate from 2003 (baseline) to 2007 was calculated for each county, for infants born in infants in counties with BPHP starting in 2004, and infants in counties with no BPHP (or BPHP starting after 2007). All analyses were repeated with stratification for non-Hispanic white and non-Hispanic black race.

For three indicators, breastfeeding initiation rate in 2003, breastfeeding initiation rate in 2008, and absolute percentage point change in breastfeeding initiation rate from 2003 to 2007, Ohio's 88 counties were categorized into tertiles. Maps were generated to display the tertiles for each indicator. T-tests were conducted in SAS to test the 2003 to 2007 change in breastfeeding initiation rate in BPHP vs. non-BPHP counties. The following procedure was used. Change in breastfeeding rates were first calculated for each BPHP project and each never-BPHP project by subtracting the breastfeeding rate in 2003 from the breastfeeding rate in 2007. A t-test was conducted to compare change by BPHP status. The 11 projects that began BPHP after 2004 but prior to 2008 were not included in the analysis. To test for racial differences in impact of the

program, the above was repeated stratified by race (e.g. the project level rates for only non-Hispanic black or non-Hispanic white infants).

For objective 3, to determine successful characteristics of BPHP programs, descriptive analyses of program characteristics compared to initiation rates were completed. For each program characteristic considered, each of the 11 BPHP projects were categorized into a “high” or “low” group. Using SAS software, for each group the breastfeeding initiation rate in 2003, rate in 2007, and absolute percentage point change in rate from 2003 to 2007 were calculated. Additionally, for each characteristic, the difference in absolute percentage point change in rate between the two groups was calculated. (Note that statistical tests, controlling for individual and project level characteristics and statistical modeling were beyond the scope of this project and not conducted. Meaningful conclusions about which characteristics may be accountable for program success cannot be made until these steps are taken. Department of Health staff expects to complete these steps for objective 3 by December 2009).

Step 6) Ensuring use and sharing lessons learned:

In order to ensure the use of this research, the results are being distributed to WIC staff throughout Ohio. An oral briefing and written summary were presented to State WIC administrators. An executive summary has been developed for use in the clinics and by WIC staff members who are interested in the findings in a summarized format. A poster summarizing the results will be presented at an Ohio public health meeting in June and then left with the State WIC office. Lastly, the State Maternal and Child Health epidemiologist will be available to follow-up with WIC staff on remaining questions and interpretation of results.

Results:

Objective 1:

The first objective of this study was to describe the current operations of the program among established BPHP projects. Information regarding characteristics of the 13 counties comprising the 11 BPHP projects can be found in Table 2. The majority of BPHP counties were rural, including three Appalachian counties. Four BPHP counties were suburban. Two of the 13 counties were metropolitan. They were unique from the other BPHP projects in that they served a large number of participants per month ($>3,000$) and that over $1/3$ of their women participants were non-Hispanic black.

Characteristics of peer helpers are displayed in Table 3. Staff training, pay and demographics were studied. Of the 30 peer helpers working at the time of the study, 28 completed the questionnaire. The response rate was 93.3%. The two peer helpers who were unable to respond were on a leave of absence from the job during the time that the questionnaire was distributed. Among the 11 Ohio WIC projects studied, current peer helpers were all previous WIC participants. Once hired, peer helpers were trained for between 15 hours to 80 hours (see Table 3). The mean hours of training were 31.4 hours. The pay rate for peer helpers ranged from \$8.00 per hour in Monroe County to \$12.28 per hour in Lake County. The mean and median rates of pay were similar at \$10.43 and \$10.44, respectively. The mean and median age of peer helpers were similar at 35.18 years old and 35 years old respectively. Ashtabula had the oldest peers with a mean age of 41 years and Montgomery had the youngest mean age at 30 years old. Only the projects in Greene, Lucas and Montgomery counties had at least one black peer helper, meaning that eight out of 11 projects (72.7%) had no black peer helpers. Only one project, Lucas, had a Hispanic peer helper.

Table 2: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- County Information					
County	County type	Average number of women served per month*	% women WIC participants non-Hispanic white**	% women WIC participants non-Hispanic Black**	% women WIC participants Hispanic**
Ashtabula	Rural, Non-Appalachian	818	87.1	6.0	4.9
Belmont	Rural, Appalachian	438	94.2	4.1	1.2
Columbiana	Rural, Appalachian	746	97.3	1.6	0.4
Erie	Rural, Non-Appalachian	454	70.4	22.0	6.0
Fairfield	Suburban	500	92.9	3.9	1.2
Greene	Suburban	614	82.1	13.8	1.9
Huron	Rural, Non-Appalachian	539	81.3	0.7	13.8
Lake	Suburban	871	73.3	8.7	16.2
Lucas	Metropolitan	3,628	51.4	36.5	9.6
Monroe	Rural, Appalachian	132	100.0	0.0	0
Montgomery	Metropolitan	3,443	53.8	41.8	3.2
Portage	Suburban	760	85.3	10.3	1.9
Williams	Rural, Non-Appalachian	255	90.5	0.8	7.3

*Based on administrative records from 8/07-8/08

**Based on 2007 PNSS data

Table 3: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Peer Helper Characteristics

Project	Number of peer helpers	Hours of training	Peer helper average pay per hour	Mean age of peer helpers	Number of black peer helpers
Ashtabula	3*	80	\$11.48	41.0	0
Belmont	3	16	\$8.45	32.0	0
Erie-Huron	2	42	\$10.59	36.0	0
Fairfield	3	21	\$10.30	33.0	0
Greene	3*	40	\$11.21	37.0	1
Lake	2	20	\$12.28	37.3	0
Lucas	5	15	\$9.63	37.7	3
Monroe	1	45	\$8.00	35.7	0
Montgomery	3	50	\$10.83	30.0	1
Portage-Columbiana	4	24	\$10.44	33.5	0
Williams	1	20	\$10.00	32.0	0
Mean or median	Mean=2.7	Mean=31.4	Mean=\$10.43	Mean = 35.2 Median=35	---

* One peer from this project did not respond to the survey

Data about peer helper experience and education levels were also collected. Results regarding the education level of peer helpers, the longest amount of time that they breastfed a child, the problems they breastfed through, and the amount of time they have been working at WIC can be found in Table 4. All peer helpers had previously breastfed one or more of their own children for at least six months and 20 peer helpers (71.4%) breastfed a child for over a

year. The most commonly experienced problem while breastfeeding was sore nipples, which was experienced by 25 of the 28 peer helpers who responded to the questionnaire. The least common problem was breastfeeding a non-latching baby, which was only experienced by one peer helper. Over half of the peer helpers (53.6%) had received some college education.

Table 4: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Peer Helper (n=28) Experience and Education		
Questionnaire question	Response	Count
Years worked at WIC	<1 year	8
	1 year	3
	2 years	3
	3 years	2
	4+ years	12
Longest time breastfeeding a child	6-8 months	2
	9 months-1 year	6
	More than 1 year	20
Problems that were breastfed through	Breastfed Through Sore Nipples	25
	Breastfed Through Mastitis	6
	Breastfed Through Plugged Ducts	21
	Breastfed Through Low Milk Supply	11
	Breastfed Through Overactive Let Down	7
	Breastfed a Premature Baby	3
	Breastfed Through Poor Weight Gain	4
	Breastfed a Poor Latching baby	11
	Breastfed a Non-latching Baby	1
	Breastfed While Pregnant	8
	Breastfed Through Thrush (Yeast)	11
What is the highest level of education you have received?	Less than 12 years	1
	High school graduate or GED	4
	Some college	15
	College degree	8

Self-efficacy of peer supervisors and peer helpers is displayed in Table 5. Only one person in the supervisor and one helper considered themselves to be only “slightly confident”. Of the peer supervisors, 14 (82.4%) considered themselves to be confident or very confident in their job. Of the peer helpers 22 (78.6%) considered themselves to be very confident.

Table 5: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Peer Helper and Peer Supervisor Self-Efficacy		
Confidence level	Peer supervisors	Peer helpers
Slightly confident	1 (5.9%)	1 (3.6%)
Somewhat confident	2 (11.8%)	5 (17.9%)
Confident	8 (47.1%)	0 (0%)
Very confident	6 (35.3%)	22 (78.6%)
Total	17 (100%)	28 (100%)

The BPHP operations were assessed using administrative records from the third quarter of the 2008 fiscal year (i.e. April 1, 2008-June 30, 2008) and are displayed in Table 6. Support groups were the most common program activity in 2008 and were held in all BPHP projects except Lake. The other projects held between five to 68 support groups in one quarter, with an average of almost 25 support groups being held per quarter. Hospital visits and home visits were not as common as support groups. Six of the 11 projects (54.5%), including Belmont, Fairfield, Lake, Monroe, Montgomery and Portage-Columbiana, did not conduct hospital visits as a part of the BPHP program. Only two projects (18.2%), Ashtabula and Lucas, conducted substantial number of hospital visits (39 and 138 visits, respectively). The remaining 3 (27.3%) projects, Erie-Huron, Greene and Williams, conducted between one and three hospital visits during the

quarter. Similarly, home visits were also only a part of some project's programs. Again, only two the programs, Belmont and Erie-Huron, completed more than two home visits.

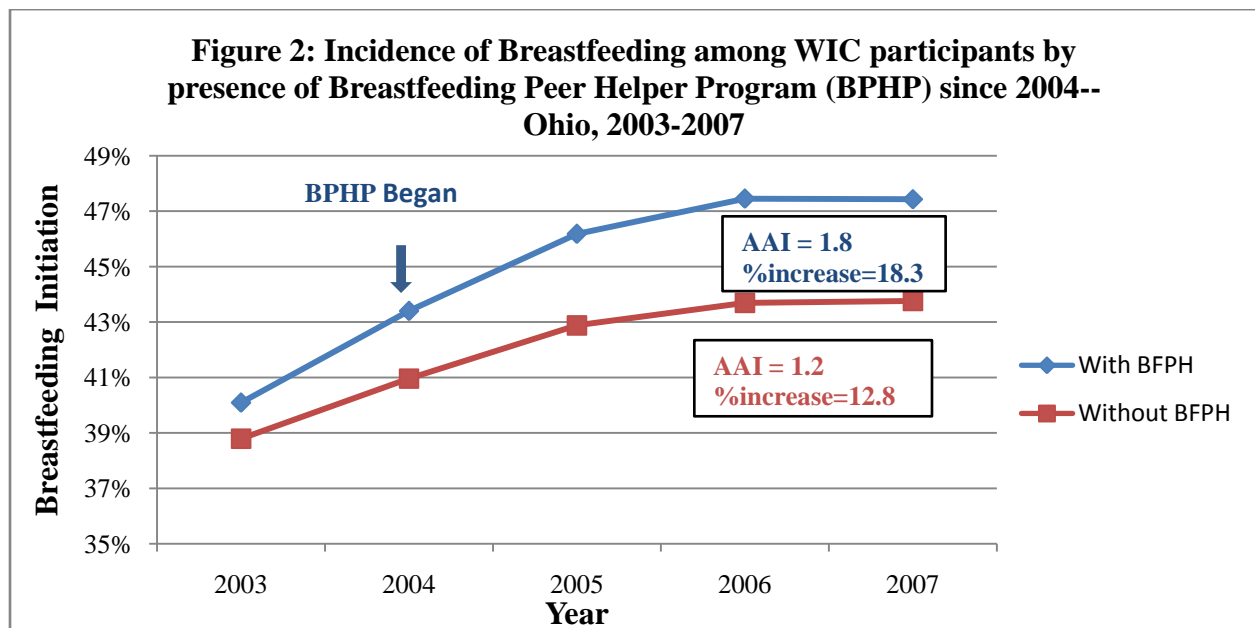
The number of meetings that supervisors held with their peer helpers also ranged greatly from project to project and was assessed using an average of the first three quarters of the 2008 fiscal year (October 1, 2007-June 30, 2008) (see Table 6). In the quarters studied, no meetings were held between peers and supervisors in the Lake county project and less than one meeting per quarter was held on average in Erie-Huron. The greatest number of meetings held was nearly 20 per quarter in Belmont.

Table 6: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Activities of the Program				
Project	Average women participants per month in project	Hospital visits per quarter	Home visits per quarter	Support groups per quarter
Ashtabula	818	39	1	59
Belmont	438	0	11	26
Erie-Huron	993	1	13	14
Fairfield	500	0	0	14
Greene	614	3	0	5
Lake	871	0	0	0
Lucas	3628	138	0	25
Monroe	132	0	2	68
Montgomery	3443	0	0	28
Portage-Columbiana	1506	0	0	21
Williams	255	2	1	14
Average	1199.8	16.6	2.5	24.9

Objective 2:

The second objective was to assess the effects of the BPHP on breastfeeding initiation rates. Since implementation in 2004, the number of Ohio WIC projects currently running a BPHP has increased from the 11 original projects to 21. The 10 projects that began a BPHP after

2004 and before 2008 were not included in this study. From 2003 to 2007, the overall WIC breastfeeding rate for the state of Ohio increased from 38.9% to 44.6%, which constituted a 14.7% increase. Maps of breastfeeding initiation rates in Ohio by county can be found in Appendix C for 2003, 2007 and change from 2003-2007. Overall, breastfeeding initiation rates had an absolute increase from 2003 to 2007 of 7.34 percentage points among infants in the 11 BPHP projects, which was an 18.3% increase over four years [average annual increase (AAI)=1.8%] (see Figure 2). In contrast, among infants in projects that did not have a BPHP at all from 2003 through 2007 (n=54) initiation rates increased 4.97 percentage points, which was an increase of 12.8% (AAI=1.2%). Infants in projects with the BPHP increased breastfeeding rates by 2.37 percentage points more than infants in projects without the BPHP. Projects with a BPHP had a significantly greater increase in breastfeeding rates compared to projects that never had a BPHP (p=.0018).



Improvements in breastfeeding rates within BPHP were not equivalent among both white and black participants (see Figure 3 and Table 7). White participants in BPHP projects showed a

4.08 percentage point greater increase in initiation than white participants in non-BPHP projects. However in BPHP projects, black participant's breastfeeding initiation increased by .34 percentage points less than the non-BPHP projects. Projects with BPHP had a significantly greater increase in breastfeeding rates among white infants compared to projects without BPHP ($p<.0001$). However, there was no significant difference in change in black infant breastfeeding rates in BPHP compared to never-BPHP projects ($p=.1174$).

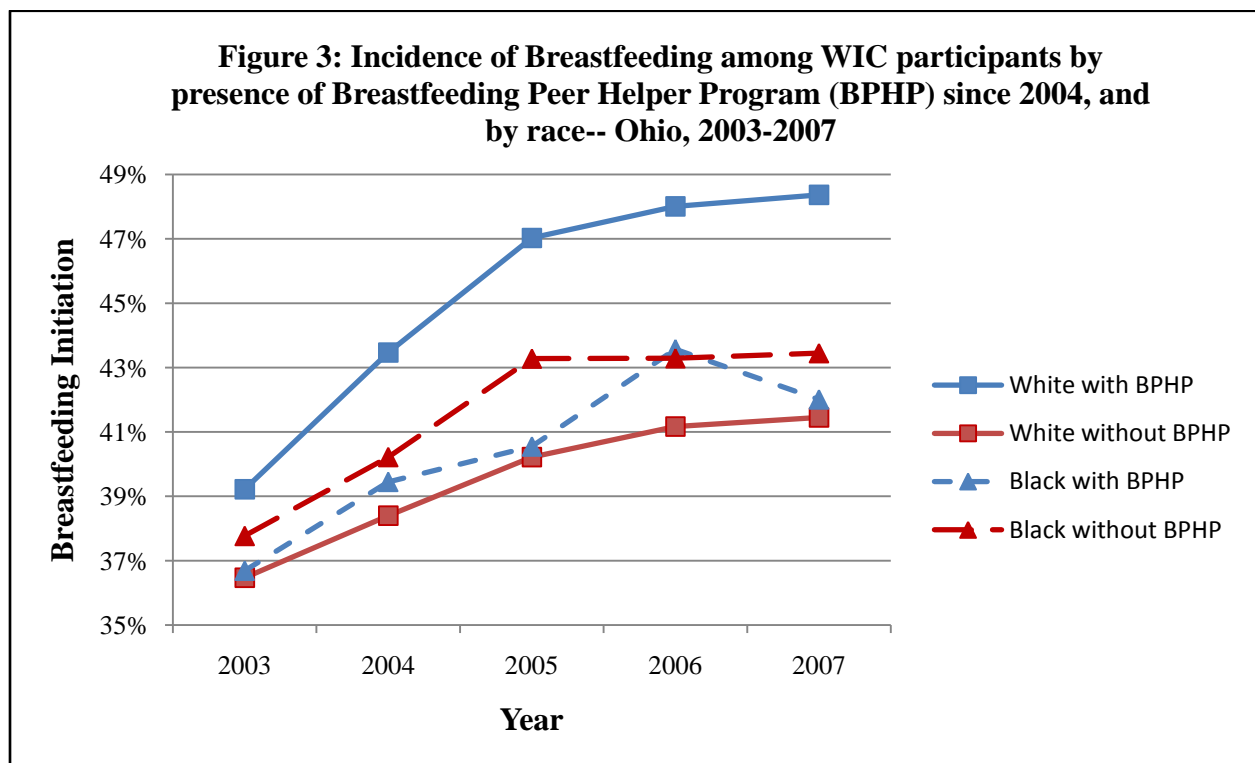


Table 7: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Percent Ever Breastfed by Demographic					
		Percent ever breastfed			
Demographic	BPHP Status	2003	2007	Increase	Difference (E)
State*	Total	38.9%	44.6%	5.7%	---
Evaluation projects	Without program	38.79%	43.76%	4.97%	2.37
	With program	40.09%	47.43%	7.34%	
Black	Without program	38.14%	43.80%	5.66%	-0.34
	With program	36.69%	42.01%	5.32%	
White	Without program	36.20%	41.27%	5.07%	4.08
	With program	39.22%	48.37%	9.15%	

* Includes all 88 counties

On the project level, 10 out of 11 BPHP projects (90.9%) experienced an increase in breastfeeding initiation as shown in Table 8. The greatest increase in initiation was in Ashtabula, which had an absolute increase of 17.8 percentage points, which was a 46.4% increase from 2003 to 2007. Only Greene showed a decrease in initiation (-0.3 percentage points), but this decrease was not statistically significant. The change in breastfeeding initiation for the entire state was 5.7 percentage points. Three of the 11 BPHP projects (27.3%) fell below this state average, but the remaining eight projects (72.7%) showed increases in initiation that were greater than the state average.

Table 8: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Breastfeeding Peer Helper Programs and State Breastfeeding Initiation Rates

Project	2003 Breastfeeding Rate (%)	2007 Breastfeeding Rate (%)	Change in Breastfeeding Rate (%)	% difference
Ashtabula	38.4	56.2	17.8	46.4
Belmont	27.7	36.0	8.3	30.0
Erie-Huron	46.6	54.4	7.8	16.8
Fairfield	37.0	46.7	9.7	26.2
Greene	47.9	47.6	-0.3	-0.6
Lake	43.9	52.6	8.7	19.8
Lucas	38.9	41.6	2.7	6.9
Monroe	45.9	49.5	3.6	7.8
Montgomery	39.6	48.0	8.4	21.2
Portage-Columbiana	39.4	50.8	11.4	29.0
Williams	42.0	51.7	9.7	23.1
State	38.9	44.6	5.7	14.7

Objective 3:

Several peer helper and program characteristics were found to be associated with greater success of a BPHP, as shown in Table 9. In the six projects where peer helpers were paid above the average rate of \$10.43 per hour, the breastfeeding rate was 4.3 percentage points higher than the five projects with lower paid peer helpers. The four BPHP programs in which at least half of the peer helpers had a college degree experienced a 2.7 percentage point greater increase than those BPHP programs with fewer peers having degrees. Projects with peer helpers of a mean age less than 35 years had a 1.54 percentage point greater increase in breastfeeding rates than those projects where the mean age of the peers was greater than 35 years of age. Of the program activities, hospital visits were associated with the greatest increased breastfeeding rates. In the two projects that conducted 21 or more hospital visits in a quarter, the breastfeeding rate increased by 6.62 percentage points more than in nine BPHP projects that did fewer hospital

visits. The BPHP programs that held fewer than 21 support groups per quarter were associated with a greater increase in breastfeeding rates than those BPHP programs that held more support group sessions. Additionally, more than 24 hours of training was shown to have a negative association with increasing breastfeeding rates when compared to BPHP projects with fewer hours of training.

Table 9: Ohio WIC's 2008 Breastfeeding Peer Helper Program Evaluation- Peer Helper and Program Characteristics						
		No. of Projects	Percent ever breastfed			
Peer helper characteristics			2003	2007	Increase	Difference
Paid above average (\$10.43)	No	5	40.1	45.2	5.1	4.3
	Yes	6	40.1	49.4	9.3	
≥ 50% of peers with a college degree	No	7	40.0	46.3	6.3	2.7
	Yes	4	40.2	49.0	8.8	
≥1 Black peer	No	8	39.9	47.1	7.2	1.5
	Yes	3	41.6	50.3	8.7	
Mean age of peers ≥35	No	5	40.2	48.5	8.3	-1.6
	Yes	6	40.0	46.7	6.7	
Program characteristics						
Peers trained for >24 hours	No	6	41.3	48.9	7.6	-0.5
	Yes	5	38.9	45.9	7.1	
≥21 hospital visits per quarter	No	9	39.9	46.4	6.5	6.6
	Yes	2	41.2	54.4	13.2	
≥1 home visits per quarter	No	6	41.8	49.4	7.6	-0.5
	Yes	5	38.3	45.4	7.1	
≥21 group support meetings per quarter	No	5	42.3	50.7	8.4	-1.4
	Yes	6	39.2	46.1	7.0	
<15 women per hour of peer work	No	6	40.7	49.0	8.3	-2.1
	Yes	5	39.4	45.6	6.2	
Ratio of peers:women >1:300	No	5	41.0	49.2	8.2	-1.7
	Yes	6	39.2	45.7	6.5	
Peer/Supervisor Meetings ≥5	No	5	41.4	45.9	4.5	5.9
	Yes	6	38.7	49.1	10.4	

Discussion:

This evaluation described the Breastfeeding Peer Helper Program and studied the effect of the program on initiation rates leading to the following preliminary conclusions and recommendations. The BPHP was effective at increasing breastfeeding initiation rates among Ohio WIC infants beyond standard WIC practice. This finding of the overall effectiveness of the program is consistent with the findings of previous research on similar programs within WIC populations (Arlotti, Cottrell, Lee, & Curtin, 1998; Bronner, Barber, & Miele, 2001; Caulfield et al., 1998; Grummer-Strawn, Rice, Dugas, Clark, & Benton-Davis, 1997; Schafer, Vogel, Viegas, & Hausafus, 1998; Shaw & Kaczorowski, 1999; Shaw & Kaczorowski, 1999). This is important given the fact that Ohio's breastfeeding rates are below the national average. However, even with the improvements in breastfeeding initiation rates, the Healthy People 2010 objective, which aims to have 75% of mothers initiate breastfeeding, remains unattained (Healthy People 2010 Midcourse Review, 2006). Given the potential of the BPHP to increase breastfeeding rates, it is recommended that the program be continued and expanded throughout Ohio.

Despite the overall effectiveness of the program on improving breastfeeding initiation, there was a large discrepancy between the BPHP's effects on white infants when compared to African American infants. Although white infants experienced a significantly greater increase in initiation rates when exposed to BPHP, African American infants did not have a significant difference in initiation rates based on BPHP status. Most studies have not compared the effect of WIC BPHP by race. One study that examined only black WIC participants did find a significant impact of peer helpers on breastfeeding initiation, however duration was not effected (Caulfield et al., 1998). More research is needed on the impact of a peer helper model with low-income

black women. Programs such as California's promising "Sistah Connection", an African American WIC peer counselor project, should be explored (Hoxter and Haessly, 2008).

The reason for the disparity between the effectiveness of the BPHP on white and black infants found in this study is unknown. However, Grummer-Strawn and colleagues point out that one of the key reasons to use a peer helper model is that women are more likely to accept advice from women who are more like themselves (Grummer-Strawn et al., 1997). In Ohio, only three of the 11 (27.3%) projects that were evaluated had a black peer helper on staff. An increase in the number of African American peer helpers could possibly improve the effectiveness of the program on black participants. Further analysis would be necessary to show whether or not having a black peer helper on staff positively impacted the breastfeeding rates of black infants. There has been much research into promotion and support of breastfeeding among African American women in the U.S. generally. While a review of that literature is beyond the scope of this project, it is a resource that can be explored more fully by the Ohio WIC staff. In order to ensure equity within the BPHP, Ohio WIC should focus on how to increase the effectiveness of the BPHP among African American or implementing a different promotion and support model for African American participants.

Even though Ohio's BPHP does not appear to impact breastfeeding initiation for African American women and infants, over the five years of this study African American breastfeeding rates among the entire state WIC population improved to a greater extent than rates among white. African American infants in non-BPHP counties experienced a greater increase in breastfeeding rates than white infants in non-BPHP counties, although no significance test was performed. Also, contrary to most populations in the U.S., there is no black vs. white disparity in breastfeeding initiation in Ohio WIC. These observations indicate that promotion of

breastfeeding using standard WIC practice, without a BPHP, when combined with societal trends, is at least as effective among black participants than white participants.

This evaluation also provided insight into the current operations of established BPHPs throughout the state. The wide range of hours spent in training, rate of pay and program activities, among other characteristics indicate a lack of uniform statewide policies regarding the program. This lack of policies is consistent with the finding from Bronner and colleagues, which indicated that about half of WIC programs across the nation lacked set procedures for hiring, training and on-the-job activities of peer counselors (Bronner, Barber, Vogelhut et. al., 2001). At least one study has shown that lack of proper training and supervision can lead to an ineffective program when using indigenous workers in a healthcare setting (Giblin, 1989). Full analysis of the data regarding which program activities were statistically significant in increasing breastfeeding rates was beyond the scope of this project.

The current operations of Ohio's established BPHP are primarily comprised of support groups. While hospital visits were not common, the few projects that conducted more than 21 hospital visits per quarter had much greater improvements in breastfeeding initiation compared to BPHP projects that did not. This observation warrants further investigation on the potential impact of hospital visits within the BPHP. Additionally, the National WIC Survey indicated that over 50% of participants had the responsibility of calling peer helpers to inform them of deliveries, which may be an indication of why hospital visits in Ohio's BPHP were so few in number (Bronner, Barber, Vogelhut, & Resnik, 2001). Other potential activities were not explicitly studied, but could further improve success of Ohio's BPHP. A focus on activities to improve breastfeeding among African American infants was previously mentioned. Another possibility is the addition of a father-focused component. A Father-to-Father Breastfeeding

Support Pilot Program in Texas involved hiring peer dads to act as peer helpers to father's of WIC infants (Stremmer & Lovera, 2004). Clinics employing peer dads experienced increased breastfeeding initiation rates when compared to clinics without peer dads (Stremmer & Lovera, 2004). Further research should be done into what program activities, characteristics and peer helper demographics are statistically significant in improving initiation rates among Ohio WIC infants.

Other characteristics have previously been found to impact effectiveness of BPHP. One study observed that peer helpers over the age of 35 were more effective at improving breastfeeding rates (Grummer-Strawn et al., 1997). However, preliminary analysis in this study indicates that younger peer helpers may be more effective within Ohio.

Several limitations of this study should be considered. First, due to the timing of the evaluation and the data sources used, the characteristics of program and peers may not reflect characteristics over the duration of program operations. A second limitation was potential confounding by maternal age, race and education as well as low birth weight status. Maternal characteristics and demographics were not controlled for during the analysis of the data and may have been a factor in the changes in breastfeeding rates between 2003 and 2007. Third, full analysis of the third objective, which was to determine characteristics of successful programs, is incomplete. Although some statements have been made about what program attributes are associated with greater improvements in breastfeeding rates in BPHP projects, the statistical significance of these characteristics on initiation rates are still unknown. Plans to finish the analysis by the end of 2009 are in place. Finally, other important outcomes including breastfeeding duration and exclusivity were not included. Most of the limited previous research has shown that peer helpers are effective at increasing duration rates (Grummer-Strawn et al.,

1997; Schafer et al., 1998; Shaw & Kaczorowski, 1999). The 2005 evaluation of Ohio's BPHP, similar to this evaluation, did not examine breastfeeding duration (Taylor, 2005).

Beyond WIC, similar research has been conducted on breastfeeding promotion by peers among low-income populations in Great Britain. For example, one study in Great Britain found that peer support workers were not effective at increasing initiation rates on low-income women (MacArthur et al., 2009). Although this study in Great Britain did not show positive effects of peer helpers, other studies did find peer helpers to be effective. A study in Glasgow found that, after controlling for confounding variables, the use of trained helpers significantly increased breastfeeding initiation in the intervention group vs. the control group (McInnes et al., 2000). It is possible that some programs outside of WIC could provide insight or ideas for Ohio WIC to utilize.

This evaluation indicated that the Ohio BPHP has been effective in helping WIC to reach its goal of increasing breastfeeding rates. It is recommended that Ohio continue and expand the program, but also invest in improving the program's impact on African American infants or explore other models for improving breastfeeding among African American infants. As the BPHP is continued and expanded, Ohio WIC should continue to evaluate the program to ensure its on-going success and continual ability to improve breastfeeding initiation rates among Ohio WIC infants.

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Appendix A

List of Stakeholder Questions

Stakeholder Questions

Questions generated by breastfeeding coordinators and peer supervisors:

Effect of face-to-face contact vs. phone (vs. postcards, mailing)

Who should be targeted- people that want to BF or not or both?

Effect of hospital and home visits

After hours contact availability vs. 9-5 contact

What helps mom's keep BF when they return to work?

Effect of time spent in a group vs. one-on-one support

The effectiveness of peers with CLC certification vs. no certification

Retention rate of peers

How WIC staff in general relates to the peer helpers

Effect of the age of the peer- is older or younger better? Is it better if they are currently BF and working?

Questions generated by State-level administrators:

Should more money go into this program (is it effective at raising breastfeeding rates)?

Does the age or past experience of a peer make a difference in how effective they are?


Does pay rate make a difference in effectiveness of peer?

Appendix B

Cover Letters and Questionnaire

August 1, 2008

To: WIC Project Directors of Ashtabula, Belmont, Erie-Huron, Fairfield, Greene, Lake, Lucas, Monroe, Montgomery, Portage-Columbiana and Williams counties

From: Celestine Harris,  Nutrition and Administrative Services Manager

Subject: Evaluation of Ohio's Breastfeeding Peer Helper Program

The State WIC office is preparing to send out a questionnaire to help with an evaluation of the Breastfeeding Peer Helper Program. Your project is included because it was one of the original pilot programs. For this evaluation to be successful, it is important that every peer project participate. We will be asking for your help. Please have your breastfeeding peer supervisors and all peer helpers complete a questionnaire. In the next few days you will receive an e-mail containing more information about the evaluation being done as well as providing you with all the information you will need to complete the survey.

Should you have any questions regarding the survey or evaluation, please contact our student intern, Jaclyn Young, who can be reached by e-mail at Jaclyn.young@odh.ohio.gov or by phone at (614)644-8299.

Thank you in advance for your cooperation.

August 4, 2008

To: WIC Project Directors of Ashtabula, Belmont, Erie-Huron, Fairfield, Greene, Lake, Lucas, Monroe, Montgomery, Portage-Columbiana and Williams counties

From: Celestine Harris,  Nutrition and Administrative Services Manager

Subject: Completing the WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

The State WIC office is currently working on an evaluation of the Breastfeeding Peer Helper Program (BPHP). This evaluation should help to determine how effective the BPHP is for increasing breastfeeding initiation and duration rates among Ohio WIC participants. We will also be looking at what program characteristics make significant differences in the program's effectiveness.

Jaclyn Young, a senior at Ohio State University and a student intern with BNS, is working on this project for her undergraduate honors thesis. A large part of the project is to conduct a survey of the peer supervisors and helpers and analyze the results. A survey has been created on SurveyMonkey and can be accessed by following this link:

http://www.surveymonkey.com/s.aspx?sm=Bz_2bDLcl_2flxfwhakPuAvWlg_3d_3d. To follow the link, copy and paste it into your web browser or press the control key while clicking on the link. We are asking all peer supervisors and helpers to fill out this survey that will be used for evaluation purposes only. We are not looking for or expecting particular outcomes. Staff names will not be disclosed in the report. Please answer each question as accurately as possible. Each project will receive a copy of the evaluation report.

Peer Supervisors should be aware that they will be asked information regarding the number of Peer Helpers that have been replaced since 2004 and how many hours of training Peer Helpers are provided when they begin working. You may want to have materials with that information on hand to save you time.

The survey should not take more than 10 minutes. Please complete this survey by August 15, 2008.

If you have any questions or concerns with the survey, please feel free to contact Jaclyn Young at Jaclyn.young@odh.ohio.gov or (614) 644-8299.

Thank you for your time.

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. Welcome!

Thank you for taking the time to help WIC by completing this survey. It will only take a few minutes of your time.

1. Are you a Peer Helper or a Peer Supervisor?

☐ Peer Helper

☐ Peer Supervisor

2. Please answer the following questions and then click next

1. Please choose your county from the list.

2. Which certifications do you have? Check all that apply.

☐ CLC

☐ IBCLC

☐ RD

☐ LD

☐ MS

☐ MA

☐ None of these

☐ Other (please specify)

3. Employment

The next 2 questions will ask about the number of Peer Helpers that you employ and the employment turnover.

1. How many Peer Helpers does your project currently employ?

2. How many times have you had to replace a Peer Helper since 2004?

4. Training

The next question will ask about the training that the Peer Helpers receive.

1. How many hours of training does your project provide to Peer Helpers when they first start working?

5. Activities of the program

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

The next several questions will ask about the activities of your project's Breastfeeding Peer Helper Program.

1. Of all pregnant WIC participants in your county, what percentage are contacted by a Peer Helper?

- ☐ <25%
- ☐ 25-49%
- ☐ 50-74%
- ☐ 75-99%
- ☐ 100%

6. Activities of the program

1. Has your program ever allowed participants to contact a Peer Helper outside of regular project hours (i.e. early mornings, evenings or weekends)?

- ☐ Yes, we always have since the program started in 2004
- ☐ We used to, but do not currently
- ☐ We currently, do but did not always
- ☐ We never did

7. Activities of the program

1. During what years did you allow participants to contact a Peer Helper outside of regular hours? Check all that apply.

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

8. Activities of the program

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. In what year did you start allowing participants to contact Peer Helpers outside of regular hours?

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

9. Activities of the program

1. Have your Peer Helpers ever done home visits?

- ☐ Yes, they always have since the program started in 2004
- ☐ They used to, but do not currently
- ☐ They currently do, but did not always
- ☐ They never did

10. Activities of the program

1. In what years did your Peer Helpers do home visits? Check all that apply.

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

11. Activities of the program

1. In what year did your Peer Helpers start doing home visits?

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

12. Activities of the program

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. Have your Peer Helpers ever visited participants in the hospital?

- ☐ Yes, they always have since the program started in 2004
- ☐ They used to, but do not currently
- ☐ They currently do, but did not always
- ☐ They never did

13. Activities of the program

1. In what years did your Peer Helpers visit participants in the hospital? Check all that apply.

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

14. Activities of the program

1. In what year did your Peer Helpers start visiting participants in the hospital?

- ☐ 2004
- ☐ 2005
- ☐ 2006
- ☐ 2007
- ☐ 2008

15. Activities of the program

1. Have your Peer Helpers ever held group support meetings?

- ☐ Yes, they always have since the program started in 2004
- ☐ They used to, but do not currently
- ☐ They currently do, but did not always
- ☐ They never did

16. Activities of the program

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. In what years did your Peer Helpers hold group support meetings? Check all that apply.

☐ 2004

☐ 2005

☐ 2006

☐ 2007

☐ 2008

17. Activities of the program

1. In what year did your Peer Helpers start holding group support meetings?

☐ 2004

☐ 2005

☐ 2006

☐ 2007

☐ 2008

18. Last Questions!

1. How confident do you feel in your abilities to supervise the peers?

☐ Not at all confident

☐ Slightly confident

☐ Somewhat confident

☐ Confident

☐ Very confident

2. Why did you choose this level of confidence?

19. Please answer the following and then click next

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. Which of the counties do you currently work in as a Peer Helper? Check all that apply.

☐ Ashtabula

☐ Erie

☐ Lucas

☐ Belmont

☐ Fairfield

☐ Monroe

☐ Butler

☐ Greene

☐ Montgomery

☐ Columbiana

☐ Huron

☐ Portage

☐ Cuyahoga

☐ Lake

☐ Williams

20. Training and Certifications

The next 3 questions will ask about your training and certifications

1. Which of the following certifications do you have?

☐ CLC

☐ IBCLC

☐ Both

☐ Neither

2. Which of the following trainings have you attended since job orientation? Check all that apply.

☐ Back To Basics

☐ Loving Support Model

☐ Le Leche League Model

☐ None

☐ Other breastfeeding conferences or trainings (not including those offered by State WIC office)

3. Please check all languages that you speak fluently.

☐ English

☐ Spanish

☐ Somali

☐ Other (please specify)

21. Employment

The next 6 questions will ask about the length of your employment, pay and activities as a Peer Helper.

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. How many years have you been working for WIC as a Peer Helper?

- ☐ Less than 1 year
- ☐ 1 year
- ☐ 2 years
- ☐ 3 years
- ☐ 4+ years

2. How many hours per week do you work on average as a Peer Helper?

3. How much are you currently being paid per hour?

4. When you first speak with a WIC participant about breastfeeding, how often is this contact in person?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

5. When you first speak with a WIC participant about breastfeeding, how often is this contact by phone?

- ☐ Never
- ☐ Sometimes
- ☐ Often
- ☐ Always

22. Breastfeeding Experience

The next 3 questions will ask about your personal experience with breastfeeding.

1. How many of your own children have you breastfed?

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

2. How old was the child you breastfed the longest at the time that you stopped? If you are still breastfeeding him/her, how old is he/she currently?

- ☐ 0-2 months
☐ 3-5 months
☐ 6-8 months
☐ 9 months-1 year
☐ More than 1 year

3. Check all of the issues below that you personally breastfed a baby through.

- | | |
|--|---|
| <input type="checkbox"/> Sore nipples | <input type="checkbox"/> Poor weight gain in baby |
| <input type="checkbox"/> Mastitis | <input type="checkbox"/> Poor latching baby |
| <input type="checkbox"/> Plugged ducts | <input type="checkbox"/> Non-latching baby |
| <input type="checkbox"/> Low milk supply | <input type="checkbox"/> Pregnant while breastfeeding |
| <input type="checkbox"/> Overactive let down | <input type="checkbox"/> Baby with cleft lip/palate |
| <input type="checkbox"/> Premature baby | <input type="checkbox"/> Thrush (yeast) |
| <input type="checkbox"/> Multiple babies (twins, triplets, etc.) | <input type="checkbox"/> None of these |
| <input type="checkbox"/> Down Syndrome baby | |
| <input type="checkbox"/> Other (please specify) | |

23. Confidence

1. How confident do you feel in your abilities to help a participant with breastfeeding?

- ☐ Not at all confident
☐ Slightly confident
☐ Somewhat confident
☐ Very confident

2. Why did you choose this level of confidence?

24. Demographics

The last 5 questions will ask about your demographics.

WIC Breastfeeding Peer Helper Program Evaluation Survey 2008

1. Are you of Hispanic ethnicity?

- ☐ Yes
☐ No

2. What is your race?

- ☐ American Indian or Alaska Native
☐ Asian
☐ Black or African American
☐ Native Hawaiian or Other Pacific Islander
☐ White
☐ Unknown

3. How old are you?

4. What is your marital status?

- ☐ Single, never married
☐ Currently married
☐ Currently cohabitating
☐ Separated or divorced
☐ Widowed

Other (please specify)

5. What is the highest level of education that you have achieved?

- ☐ Less than 12 years
☐ High school graduate or GED
☐ Some college
☐ College Degree
☐ Beyond college

25. You're finished!

1. Please provide us with any additional comments or questions you may have here.

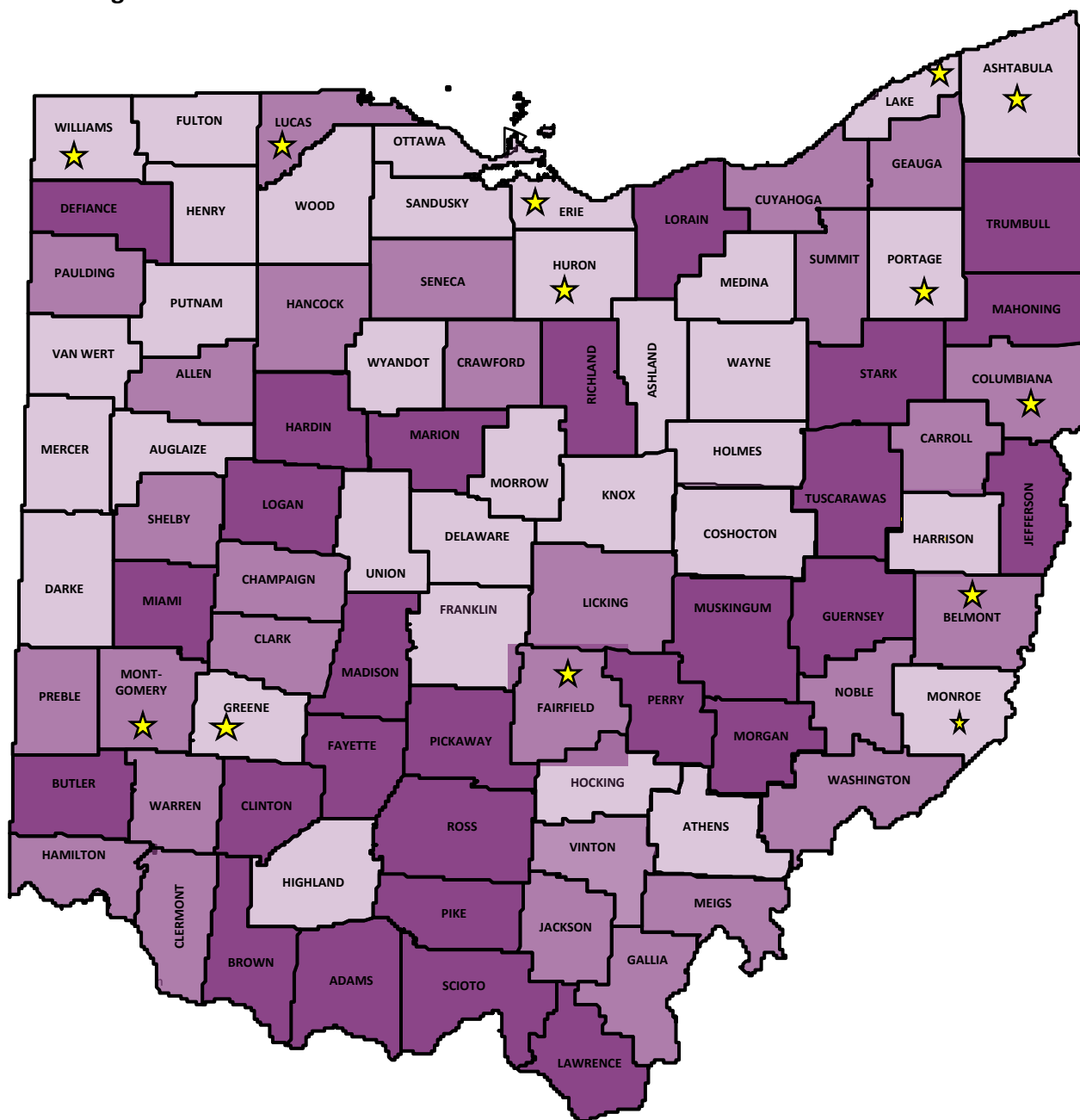
Your responses will be saved once you have clicked on the "Done" button below.

Thank you for completing this survey! We will be sure to share our results with you.

Appendix C

Breastfeeding Rate Maps of Ohio, By County

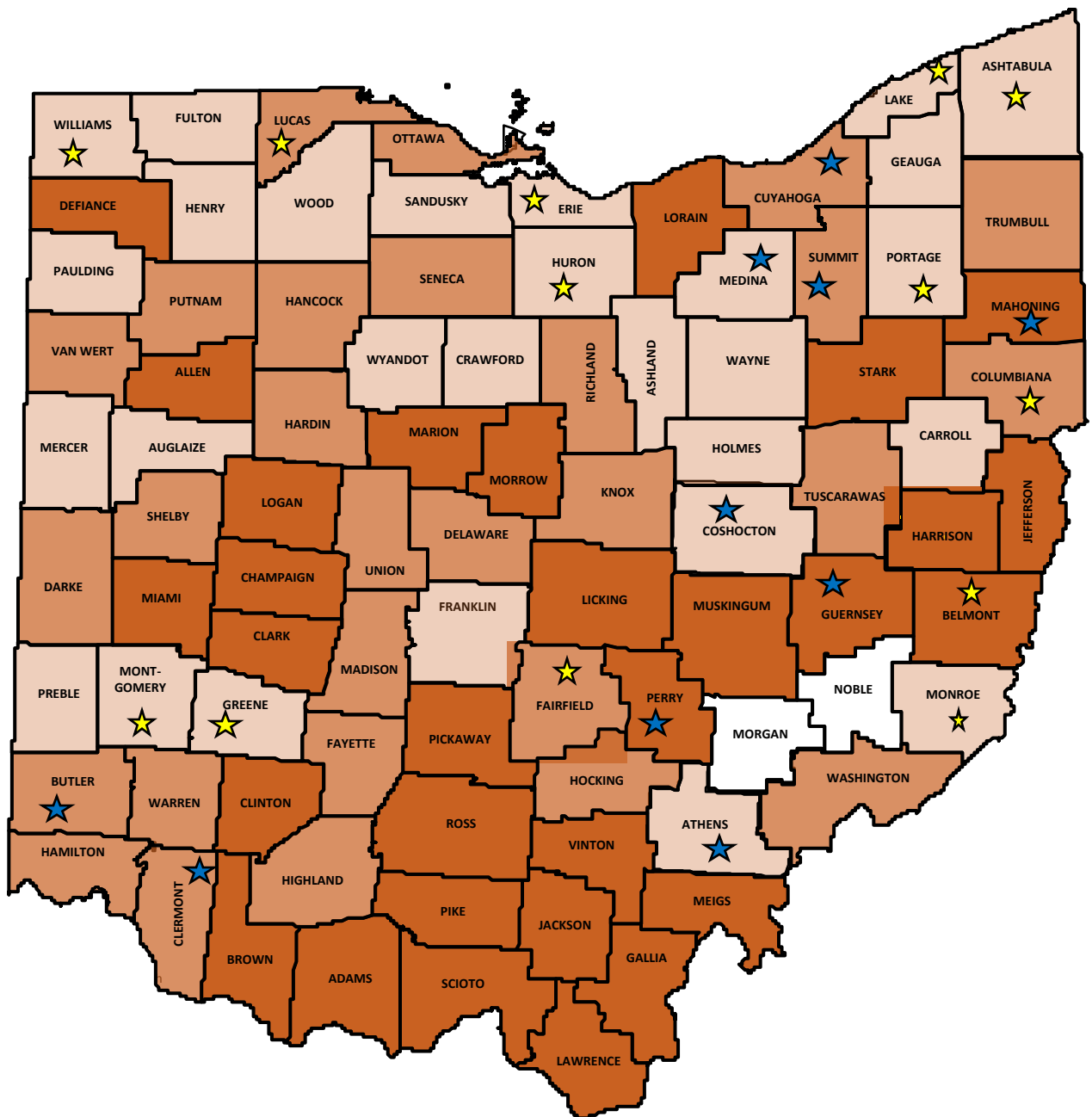
Percentage of WIC Babies Ever-Breastfed in Ohio Counties based on 2003 PedNSS data



Map Key:

- 24-35% of babies ever breastfed
 Counties with Breastfeeding Peer Helper Programs started in 2004
- >35-41.9% of babies ever breastfed
- >=42-54.9% of babies ever breastfed

Percentage of WIC Babies Ever-Breastfed in Ohio Counties based on 2007 PedNSS data



Map Key:

30-40% of babies ever breastfed

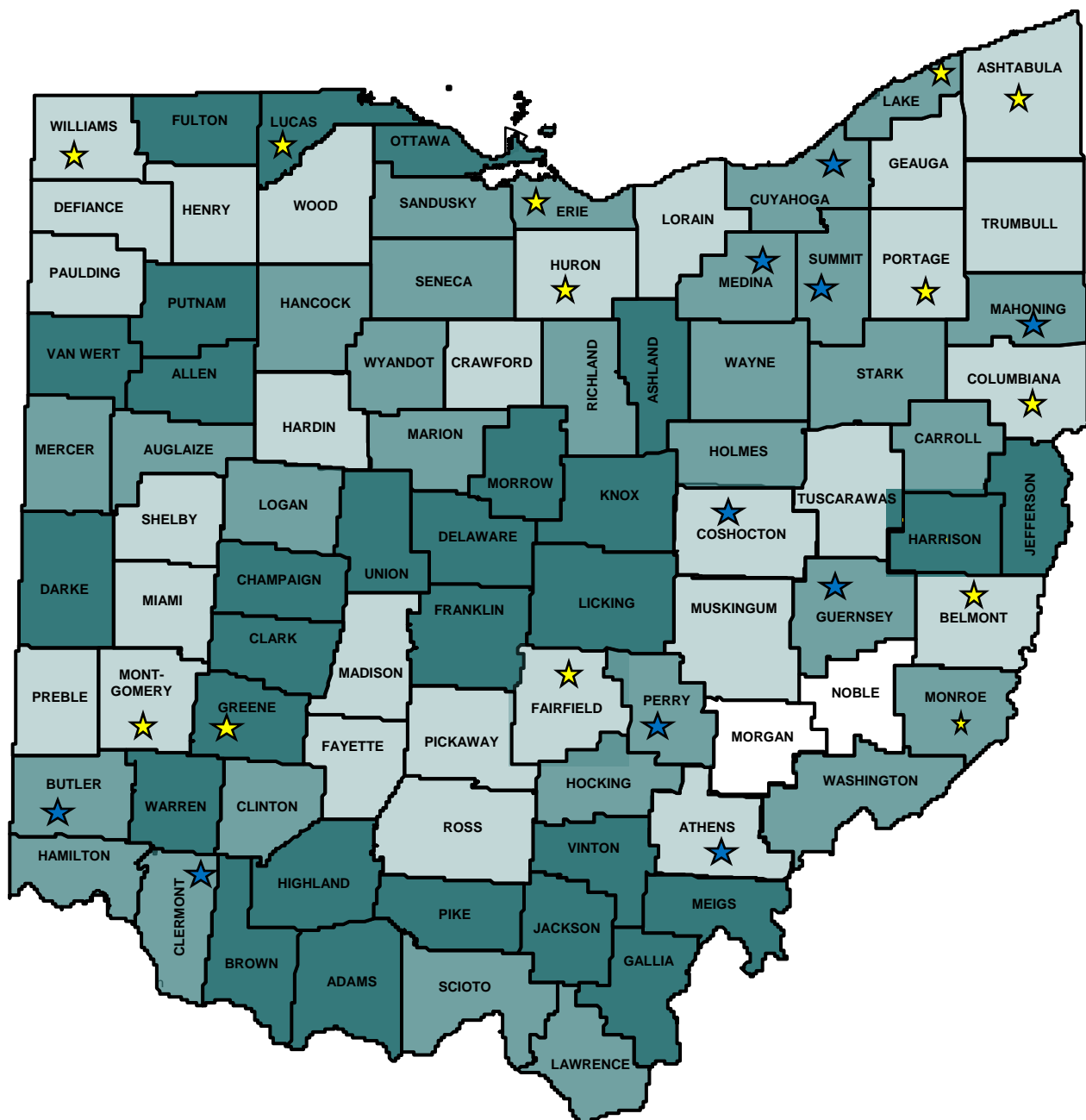
★ Counties with Breastfeeding Peer Helper Programs started in 2004

>40-47.5% of babies ever breastfed

★ Counties with Breastfeeding peer Helper Programs started between 2004-2007

>47.5-65% of babies ever breastfed

Percent Difference of WIC Babies Ever-Breastfed in Ohio Counties Between 2003 and 2007 Based on PedNSS data



Map Key:

-  -23-7% of babies ever breastfed
 >7-20.5% of babies ever breastfed
 >20.5-54.5% of babies ever breastfed
-  Counties with Breastfeeding Peer Helper Programs started in 2004
 Counties with Breastfeeding peer Helper Programs started between 2004-2007